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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,903	12/16/2003	Toshihiko Ouchi	03500.017662	3907
5514	7590	11/17/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			KANG, JULIANA K	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,903	OUCHI, TOSHIHIKO	
	Examiner	Art Unit	
	Juliana K. Kang	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/26/05</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's communication filed on August 24, 2005 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are persuasive and the rejections based upon prior art made of record in the previous office action are withdrawn. In view of further consideration, however the Linke reference (submitted by applicant) found to be more pertinent than previously thought. A new rejection is applied to the pending claims. Thus, this action is not made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 6, 8-12 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Linke (U.S. Patent 5,191,219, submitted by applicant).

Regarding claims 1 and 18, Linke discloses an optical waveguide device comprising: a slab-type optical waveguide layer; and a plurality of chips (subsystem, see column 3 line 9, column 3 lines 61-66) which include optical input and output ports for inputting and outputting an optical signal to and from the slab-type optical waveguide layer, wherein in optical input port recites an optical signal, output by and optical output port, form the slab-type optical waveguide in accordance with a timing control signal inputted using an electrical connection between the plurality of chips, wherein the timing

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control signal is an electrical signal obtained by dividing a clock frequency for the optical signal, and wherein the optical signal output by the optical output port comprises a packet signal train formed of a finite pulse train (see column 1 line 51-56), and wherein the timing control signal is individually sent as an instruction signal used to select adoption or rejection of the packet signal to the side of the optical input port to carry out time division packet switching(see column 1 line 44-column 2 line 5) thus providing high speed optical connection.

Regarding claim 3, Linke discloses coupling the light to/from optical element layer in a direction nearly perpendicular to the optical waveguide in another layer (see column 3 lines 30-31) thus it inherently has an optical path changing means.

Regarding claims 6 and 13-17, the method of forming the device is not germane to the issue of the patentability of the device itself. Therefore, these limitations have not been given patentable weight.

Regarding claims 8-12, Linke discloses layered structure of information processing apparatus having both optical and electrical elements (see column 3 lines 62-63) that are coupled with both optical and electrical connections (see column 1 line 44-column 2 line 5 and column 2 lines 20-31 and column 5 line 65-column 6 line 5). Linke discloses an electrical wiring formed on an electrical circuit substrate (see column 3 lines 12-15) and plurality of chips mounted on a wafer (an electrical circuit substrate) (see Fig. 3).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linke (U.S. Patent 5,191,219) as applied to claim 1 above, and further in view of Uchida et al (US 2004/0042705 A1, previously applied upon).

As described above, Linke discloses the claimed invention including the optical path changing means but does not teach the specifics of the optical path changing means. Uchida et al teach an optical path means comprising an optical reflector having a projection portion (see Fig. 1 and 3) to provide better integrated, lower cost and more reliable optical interconnection for electronic circuit boards [0008]. Since Linke and Uchida et al are from the same filed of endeavor (i.e. optical/electrical coupling in circuit board), it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the optical path changing means of Uchida et al in Linke to provide better integrated, lower cost and more reliable optical interconnection.

Conclusion

6. The prior art documents submitted by applicant have been considered and made of record (note the attached copy of form PTO-1449).

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (571) 272-2348. The examiner can normally be reached on Mon. & Fri. 10:00-6:00 and Tue. & Thur. 10:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JULIANA KANG
PRIMARY EXAMINER

Juliana Kang
11/3/05